



UNITED STATES NAVY

MEDICAL NEWS LETTER

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Policy

The U. S. Navy Medical News Letter is basically an official Medical Department publication inviting the attention of officers of the Medical Department of the Regular Navy and Naval Reserve to timely up-to-date items of official and professional interest relative to medicine, dentistry, and allied sciences. The amount of information used is only that necessary to inform adequately officers of the Medical Department of the existence and source of such information. The items used are neither intended to be, nor are they, susceptible to use by any officer as a substitute for any item or article in its original form. All readers of the News Letter are urged to obtain the original of those items of particular interest to the individual.

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Change of Address

Please forward changes of address for the News Letter to: Commanding Officer, U.S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md., giving full name, rank, corps, and old and new addresses.

* * * * *

The issuance of this publication approved by the Secretary of the Navy on 28 June 1961.

Summary of Thirteen Years' Experience
with the Second Look Program *

Victor A. Gilbertsen M.D., and Owen H. Wangenstein M.D., F.A.C.S.,
Surg Gynec Obstet 114: 438-442, April 1962.

During the past several decades, conventional surgical therapy has been productive of encouraging results in the treatment of patients with lymph node negative visceral cancers. With lymph node involvement, however, attempts to achieve cure are often met with failure, and most of these patients may be expected to die from the effects of the cancer. A recent, 20-year follow-up study (2) of the results of curative excisions for rectal cancer, for example, has indicated that lymph node involvement often is associated with late recurrence, and the 5-year, cancer-free survival rate may be no higher than 10%.

The second look program of operations (4), introduced in 1948, has directed attention to the need for improvement in opportunity for cure for patients with lymph node positive gastrointestinal cancers. Several aspects of the second look concept have been previously reported (1) and are outlined here only in summary. This article presents the current status of second look patients and summarizes the experience of 13 years.

The second look concept is, fundamentally, one of reoperation on asymptomatic visceral cancer patients. Other operations, however, have been performed in the presence of symptoms suggestive of recurrent tumor; they have been designated "symptomatic" second look operations to distinguish them from the more conventional "asymptomatic" operations. The results achieved in the symptomatic cases are also included in this report.

The Plan of the Second Look Study

In the performance of the second look study, patients who have undergone curative excisions of lymph node positive visceral cancers have participated in a systematic program of reoperation. Six months following primary curative operation, asymptomatic patients have voluntarily submitted to reexploration of the operative area. The incision usually is made through the area of the old scar which is then routinely excised. Adhesions are lysed. The abdomen and pelvis are explored, a careful assessment is made, and a thorough search for residual cancer is performed. Both the operative area and areas of frequent metastases are systematically examined.

When residual cancer is identified the extent of recurrence has sometimes precluded the possibility of successful excision. In many other instances, however, all or a part of the grossly recurrent cancer has been excised.

When no gross residual tumor is found biopsies are made from sites known to be frequently involved with recurrent cancer, and all suspicious tissue is removed. Remaining lymph node bearing tissue in the area of the primary operation is also excised for microscopic examination.

* From Department of Surgery, University of Minnesota, Minneapolis, Minn.

Patients who had residual tumor which was removed at second look operation have undergone further reoperations until no residual cancer was found or until the extent of the recurrence has become overwhelming. Those who have had a final negative look have not been subjected to additional operations unless evidence of further recurrence has subsequently been manifested.

Classification of Cases and the Over-All Result

The patients who have undergone second look operations may be grouped in the following three categories (Group 2 may be noted to be a selected portion of Group 1).

Group 1 - Asymptomatic patients with colic, rectal, gastric, and ovarian cancers. Since 1948, 234 patients with lymph node positive cancers of the stomach, colon, rectum, or ovary have undergone asymptomatic second look operations. The number of secondary operations performed totaled 338. Residual cancer was detected at second look operation in 120, or 51%, of these 234 patients (Group 2). No residual cancer was identified in the remaining 114 patients.

Group 2 - Asymptomatic patients with residual cancer detected at second look operation. Of the 120 asymptomatic patients with residual cancer which was identified at second look operation, 10 have undergone a final negative look and present no evidence of further residual cancer, 38 to 147 months following their initial procedures. Eight of these patients are alive and 2 have died of unrelated causes, 92 and 133 months after primary operation. The salvage rate—a final negative look after excision of residual cancer—thus, was 9.6%.

Group 3 - Symptomatic patients with gastric, colic, rectal, and retroperitoneal cancers. Symptomatic second look procedures have been performed on 92 patients with cancer of the stomach, colon, rectum, or the retroperitoneal area. Symptoms suggestive of recurrence were present when these patients underwent initial reoperation, but each subsequently has undergone asymptomatic reoperation. Eleven of the group of 92 patients have had a negative final look and remain free of evidence of further residual cancer. The conversion rate for the group was 13.6%.

Asymptomatic Second Look Patients

Stomach. Sixty-seven patients who have undergone asymptomatic second look operations have had cancers primary in the stomach. In 39 patients, residual cancer was identified at second look operation; in 28, none was detected. Three of the 39 patients in whom residual cancer was detected at second look operation have been converted to negative; 2 of the 3 are alive and well, after 130 and 150 months, and the third died 8 years after the initial operation without evidence of further residual cancer. The conversion rate was 8.3%. Of the 28 who had no evidence of residual cancer at second look procedure, 15 are living without signs of residual. Eight, however, have died of recurrences. Five have died from causes other than cancer.

Rectum. Second look operations were performed for 56 asymptomatic patients who had had lymph node positive rectal cancers; 74 reoperations have been performed. Residual cancer was identified at second look in 27 patients; one is living and well 106 months after primary excision; 23 have died of recurrence; another is alive and well 65 months after initial operation, and is presently awaiting another look; 2 operative deaths occurred. Of the 29 patients who had no residual cancer found at reoperation, 14 are living and well, and 15 have died. Of the 15 who are dead, 8 died of recurrent cancer.

Colon. Ninety-seven patients with lymph node positive colon cancer have undergone asymptomatic second look operations. Recurrent cancer was identified in 43 of the 97; none was found in the remaining 54.

Second look colon cancer patients continue to constitute an optimistic group; 3 have had a negative final look and are alive and well at 144, 143, and 11 months; a fourth patient died of unrelated disease at 133 months. Another patient, living and well, presently awaits another look. The conversion rate, thus, was 11.8%.

Of the 54 patients in whom residual cancer was not identified at reoperation, 38 are living and well, and another awaits further operation. Of the 15 who have died, one was an operative death, 7 died of recurrent cancer, and the remaining 7 died with no evidence of recurrence.

Ovary. Fourteen patients have undergone 37 second look operations for ovarian cancers. Recurrent cancer was identified at reoperation in 11 patients; in 3 no cancer was found. Two of the 11 who had residual cancer at second look operation are living and well following re-excision, at 147 and 38 months. A third patient, free of symptoms, awaits another look 45 months after initial excision. Another, alive 198 months after first operation, has evidence of recurrence. Two operative deaths occurred. Five patients have died of recurrent cancer.

Of the 3 patients without recognized residual cancer at second look operation, 2 are alive and well. In the third, symptoms of recurrence developed following a negative look; subsequently, this patient had a positive look and awaits further operation. The conversion rate, thus, was 22.2%.

Operative Mortality. The operative mortality rate for the 234 asymptomatic patients who had second look operations for gastric, colic, rectal, and ovarian cancers was 6.8%. Operations totaled 338 for a mortality by operation of 4.7%. To date, only one operative death has occurred in the group of 114 patients who had no evidence of residual cancer at second look operation.

Reoperations for Retroperitoneal Sarcomas

The principle of multiple stage operations has been employed in the treatment of patients with sarcomas of the retroperitoneal area. These operations were performed in the presence of clinically detectable recurrences and are tabulated as symptomatic second looks. Following the initial symptomatic operations, however, subsequent looks were performed in the asymptomatic stage.

The 10 patients in this group have undergone 32 secondary reoperations. Two of the patients are living and well following a negative final look, at 84 and 155 months; one is living with recurrence; another died 124 months after initial operation without evidence of recurrence. One operative death occurred, and 5 died with recurrence.

Patients Who Had Residual Cancer at Secondary Operation

A total of 212 patients had residual cancer which was identified at second look procedure, including both Group 2 and Group 3 patients. The patients comprising this combined group had lesions primary in the following sites: stomach, 70; colon, 79; rectum, 42; ovary, 11; and retroperitoneal, 10; the highest conversion rate occurred for the small group of patients who had retroperitoneal cancers.

Residual Cancer Unrecognized at Second Look Operation

Evidence of the presence of residual cancer was not obtained in 114 of the group of asymptomatic patients who underwent second look operations for cancers of the stomach, colon, rectum, or ovary. To date, 42 of this group have died; 23 patients, or 55%, of the group had recurrent cancer.

In the 13 years since the beginning of the program, the percentage of negative explorations has shown a steady increase. With the completion of longer and more detailed follow-up study, the percentage of deaths from previously unrecognized recurrences has also increased. This circumstance, beyond providing information concerning the behavior of certain cancers, emphasizes the need for more adequate methods to detect the presence of early residual cancer at the time of re-exploration operations. Some of the second look reoperations may have been performed too early to permit accurate identification of the presence of recurrent cancer. The writers are prompted therefore to continue to explore technics of improving their diagnostic acumen while striving to better the performance score with late visceral cancer.

Second Look Failures

Second look patients who have died of recurrent cancer in spite of concerted efforts for a more favorable issue have come to be known as "second look failure" patients. Rates of survival for these cases were computed and compared with corresponding rates for patients who did not undergo second look reoperation. Second look failure patients, in spite of ultimate death with uncontrolled recurrent cancer, manifested superior rates of survival for several postoperative years for nearly every site of primary involvement. A more detailed evaluation of palliative prolongation of survival associated with second look failures is reported elsewhere (3).

Summary

In spite of concerted efforts directed toward improvement of operative results, many patients who undergo primary excision procedures for lymph

node positive visceral cancers are not cured. The results of the second look study indicate that 50% or more of asymptomatic patients who have undergone curative excisions for these lesions have harbored residual tumor at initial second look. In addition, many who were free of recognized residual cancer at second look operation later exhibited unmistakable signs of recurrence.

Since commencement of the second look program in 1948, about 10% of the patients who were found to have residual cancer at second look operation eventually have been converted to a negative status. This modest but encouraging success in patients otherwise marked for death from recurrent cancer appears to justify continuance of the program. Moreover, a good deal of information has been gained concerning the common sites of residual cancer following the performance of curative operative procedures.

One area for improvement in accomplishment concerns the more accurate detection of residual cancer at the first second look procedure. Failure to identify evidence of residual tumor, with the patient ultimately dying of cancer, suggests that the timing of the first second look operation may need reevaluation. It would appear that, in some instances, a 6-month interval after the primary procedure has been too brief, and residual cancer has not been identified; in these instances, it may have been wiser if the first reoperation were deferred until 10 to 12 months had elapsed following the primary procedure. When, however, the lymph node involvement encountered at the initial procedure is extensive, early reoperation still appears to be in order.

It is anticipated that further studies will allow development and incorporation into the study of newer and improved methods for identification of early residual cancer. Further attention to the use of second look procedures in patients with soft tissue sarcomas is also planned as well as a continuing study of the application of the second look principle to the treatment of patients with gastrointestinal and ovarian cancers.

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Blood Bank Standards Revised

From Frank E. Wilson M.D., Executive Vice President, Joint Blood Council, 1500 Mass. Ave., N. W. Washington 5, D. C.

The basic document for voluntary accreditation of blood banks has been revised and is available for distribution, the Joint Blood Council recently announced. Standards for a Blood Transfusion Service, third edition, 1962, provides improved guidelines for evaluating and conducting an acceptable blood transfusion service in hospitals and community blood banks.

Dr. Gunnar Gundersen, President of the Council and Past President of the American Medical Association, said: "The use of the previous editions of these Standards has been gratifying and undoubtedly has played an important part in elevating and maintaining high quality blood services for our patients. The new Standards show the results of constant study in this area for the past two years." Close liaison between the Standards Committee of the American Association of Blood Banks and the Council's Scientific Committee in jointly preparing the document since last revised has brought advanced technical knowledge to blood handling institutions.

The section on donor requirements is now a part of the text where it was in the appendix of the earlier editions. Other important changes include improved procedures for compatibility or crossmatch testing. Sterility testing has been defined. The section describing Packed Red Cells has been written into clearer language. The information on the use of blood in emergency situations has been expanded and revised. A new and improved form for investigating transfusion reactions has been added.

The earlier Standards have received the approval or endorsement of the American College of Surgeons, the Joint Commission on Accreditation of Hospitals, the Defense Ministry of West Germany, and is used in the accreditation program of the American Association of Blood Banks and as guiding principles by the American Red Cross Blood program. Federal medical agencies, such as the Navy and Army, use the document as reference standards in training programs.

Copies may be obtained directly from the Joint Blood Council, 1500 Massachusetts Ave., N. W., Washington 5, D. C., at \$1.00 each, payable with the order. A discount of 25% may be given on orders of 12 or more.

Member Institutions of the Joint Blood Council are the American Association of Blood Banks, the American Hospital Association, American Medical Association, American National Red Cross, and American Society of Clinical Pathologists. The Council also publishes a Directory of Blood Transfusion Facilities and Services.

New Directory Available Soon. Well over 4000 hospitals, blood banks, and other blood handling institutions are being listed in a forthcoming Directory of Blood Transfusion Facilities and Services for 1962. The Council expects to have this new Directory ready for distribution and sale some time in

May 1962. It will categorize the alphabetized listings according to a functional definition of blood banks. State Blood Bank Associations and Committees on Blood of State Medical Societies are listed. The Regional Reference Laboratories and the Central Rare Donor Registry of the American Association of Blood Banks are listed in a separate section. Red Cross regional centers are recapitulated in another section. The Directory service has proved to be a valuable source of information and a handy reference text on blood service activities of these institutions. The price is \$5.00 per copy.

NOTE: Attention of Medical News Letter readers is invited to the Special Communications on pages 230 and 231 of the Journal of the A. M. A., Vol. 180, No. 3, 21 April 1962. Joint Blood Council Transfusion Review Program is presented in the first report. This program carries the endorsement of the Joint Commission on Accreditation of Hospitals, and provides four recommended operational guidelines for blood transfusion practices in hospitals. The purpose would be the elevation of quality and adequate supervision of these practices. Basic Criteria for Blood Transfusion is the title of the second report. It is an appendix to the Joint Blood Council Scientific Committee Report which was approved by the Joint Blood Council Board of Directors on 29 October 1961. This clinically geared treatise is a gem and is strongly recommended for high priority on Medical Officers' professional reading list.

—Editor

* * * * *

Public Welfare Program - A Progress Report

Twin concepts underlying President Kennedy's public welfare program—"prevention" and "rehabilitation"—are keynoted in the March-April Rehabilitation Record, official magazine of the Office of Vocational Rehabilitation, U. S. Department of Health, Education, and Welfare.

Achievements in the first year of an experimental District of Columbia training center for mothers receiving Aid to Dependent Children are outlined in an article which observes that "rehabilitation for the mothers means prevention for the children," under a program of vocational rehabilitation, together with reeducation and physical, medical, and psychiatric treatment to end a generation-to-generation pattern of dependency.

Colonial Inn, a Kentucky residence designed "to serve as a happy transition, not a permanent haven" for women who are former mental patients, is described in Doorway to Life, an article on the Inn which is operated by the Kentucky rehabilitation program.

"No more long empty days" for nursing home patients is the promise held out by a Montgomery County, Md., training program for occupational therapy assistants. An article on this project—the first of its kind—points out that patients are helped by the occupational therapy assistants to exercise

skills and join in organized activities. They become more self-sufficient and reduce their demands for personal nursing care, thus, allowing more effective utilization of nursing home staffs.

What Research Means to the Disabled is shown in a discussion of the impact of research and demonstration of methods of rehabilitation. This article notes the stepped up interest in practical aids to the handicapped, illustrated by a leading engineering firm's recent recruitment campaign for researchers to develop devices for helping the disabled to get around.

Other articles in this issue of Rehabilitation Record deal with (a) training of instructors to assist home teachers of the blind; (b) lessons learned by placement supervisors in seeking jobs for their handicapped clients; (c) the televised teaching of speech reading to the hearing-impaired; and (d) the meaning of work to society and the individual.

NOTE: Single copies of Rehabilitation Record may be obtained for 30 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. One year's subscription is \$1.75.

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Corneal Ulcer *
Due to Prolonged Wearing of Corneal
Contact Lenses

Jack Stanley Nauheim MD, Jackson Heights, N. Y. Amer J Ophthal 53:
678-681, April 1962.

The increasing popularity of contact lenses is accompanied by an increased risk of corneal damage. Most ophthalmologists have probably seen a number of cases of corneal abrasion resulting from the wearing of contact lenses. Lansche and Lee (1) recently presented a series of 14 patients who experienced acute corneal injury ranging from punctate keratitis to full-thickness epithelial abrasions. They reviewed the literature and found several reports of infected corneal abrasions which resulted from the wearing of contact lenses. One was the case of a patient who developed bilateral corneal ulcers and hypopyon after wearing his lenses continuously for 5 days (2). The left cornea perforated and required a conjunctival flap. In another case, the wearing of contact lenses continuously for 3 weeks resulted in a hypopyon ulcer which was difficult to control (3). In a recent editorial concerning the responsibility of the ophthalmologist in the contact lens field, Allen (4) mentioned 2 cases of contact lens-induced pyocyanus ulcers that he had seen.

Corneal damage usually results from improperly fitted lenses or failure of the patient to exercise proper care in the handling and wearing of his lenses. It is the direct responsibility of the individual in charge of the case to prevent

* The contents of this paper reflect the author's personal views and are not to be construed as a statement of official Air Force policy.

the occurrence of such circumstances. The following case illustrates how a serious complication may result from improper advice to the patient.

Case Report

On 5 January 1961, a 19-year old airman was seen in the Eye Clinic of the USAF Hospital Chanute, Chanute AFB, Ill., with a chief complaint of pain, redness, and photophobia in his right eye of 24 hours' duration. During the initial interview he asked the examiner if it were desired that he remove his contact lenses. The chagrined examiner asked him why he had put a contact lens in his inflamed eye. He replied that he had never removed it. Further questioning revealed that he had not removed his contact lenses for from 3 to 4 weeks, as he was afraid of losing them.

Examination of the eyes revealed an uncorrected visual acuity of: O. D., 20/60; O. S., 20/30. The right eye was two-plus injected and the cornea contained a superficial ulcer 1.5 mm in diameter which was surrounded by a dense infiltrate. The corneal endothelium was covered with multiple fine keratic precipitates and the anterior chamber revealed one-plus flare and cells. The left cornea showed only superficial punctate staining of its central three-fourths. The fundi and tensions were normal.

A culture of the ulcer crater was taken and the patient was hospitalized and placed on local Neosporin eyedrops every hour and 1% Atropine 4 times a day. The next morning, the ulcer was deeper and the cornea was edematous. The patient was placed on one gm of Chloramphenicol by mouth every six hours. By that afternoon, the culture had grown out gram-positive cocci in short chains. Since it was suspected that these were streptococci and the ulcer was becoming more extensive, a subconjunctival injection of 500,000 units of penicillin in one-half cc of 1% Procaine and one-half cc of 1/1000 epinephrine was administered. By the following day the situation had further deteriorated and the culture revealed gamma streptococcus and hemolytic staphylococcus coagulase positive. Sensitivity studied showed resistance to all antibiotics except Furadantin and Bacitracin. The organisms were minimally sensitive to the latter. At this point, the ulcer was cauterized with tincture of iodine, Furacin ointment was instilled, and the eye was patched. Systemic antibiotics were changed to Furadantin, 100 mg every 6 hours. On this regimen the ulcer began to heal and after 3 days there was no corneal staining. The patient was left with a corneal scar 2 mm in diameter. Despite this, the corrected visual acuity of this eye remained 20/20. Examination after all ocular inflammation had subsided revealed proper fit of his corneal contact lenses.

Comment

It is amazing that anyone could tolerate a contact lens for more than 3 weeks of constant wear. When this patient was asked who told him to do such a thing, he replied that he was told to wear the lenses as long as he could and, since they did not bother him, he left them in. Obviously, the patient's symptoms

cannot be depended upon as a warning of improper wearing or fit of the lenses. Individuals who have corneal staining from their contact lenses frequently have no complaints. Prolonged wearing of the lenses seems either to decrease the corneal sensitivity or increase the patient's pain threshold. Properly fitted lenses should not cause more than minimal superficial stippling of the cornea, and patients can often wear such lenses for 16 to 18 hours without any trouble. The lenses should always be removed at bedtime.

Many times, properly fitted lenses will cause staining and even abrasions when the patient overwears them. This frequently occurs when initial wearing time is increased too rapidly or when the patient tries to wear the lenses for a prolonged period after an interval during which they have not been worn. A number of cases of this type have been seen and on careful questioning it is usually learned that the patient has not been adequately advised by the contact lens fitter.

Investigation revealed that the writer's patient had a furuncle of the face on 26 October 1960 which was treated with erythromycin. On 7 December 1960, he had a boil of the left index finger which was treated with Chloromycetin, incision, drainage, and soaking. Culture at that time was hemolytic staphylococcus coagulase negative. No sensitivity studies were done. Since recovery from his corneal ulcer, this patient had an incipient furuncle of the face which was aborted by treatment with Furadantin. An abscess of the tragus (from which a staphylococcus sensitive to most antibiotics was cultured) and a furuncle of the thigh appeared. Thus, this patient was subject to recurrent staphylococcus infections by organisms of different antibiotic sensitivity. While it is not possible to infer that the resistance of the organisms cultured from the corneal ulcer was related to the previous infections and their treatment, it is not surprising that he developed a corneal ulcer from which staphylococci were cultured. Any break in the corneal epithelium caused by the insertion and wearing of contact lenses under such circumstances invites infection. It is reasonable to advise a patient to defer the wearing of his contact lenses during periods in which he has a bacterial infection.

Even infections in members of the immediate family should indicate the necessity of exercising extra precautions. This is especially true in the case of conjunctivitis. The son of one of the author's contact lens patients passed conjunctivitis on to his mother despite the precautions of isolation of all materials used by the infected individual and handwashing with pHisoHex^R by the patient. The presence of conjunctivitis in a contact lens wearer is obviously a contraindication to wearing the lenses.

Another likely source of infection in contact lens patients is the mouth. Many individuals use saliva to moisten their lenses. Aside from the esthetic considerations, this is an excellent way to invite ocular infection.

Contact lens solutions may be contaminated. Lansche and Lee (1) were able to culture organisms from the wetting solutions used by a number of their patients. It is the responsibility of the manufacturers of these solutions to prevent initial contamination of their products. In the event of any permanent damage resulting from their negligence there is little doubt that they will be

held accountable. It is, however, the responsibility of the individual supervising the case to instruct the patient in proper handling of these solutions in order to avoid contamination during their use. The following represents the nucleus of a code that the contact lens fitter can apply to himself and his patient.

The hands should be cleansed with soap and water before insertion of contact lenses.

The existence of more than rare episodes of minimal superficial staining indicates the necessity of reevaluation of the lens fit, the patient's insertion and removal technics, and the correction of any irregularities found.

If corneal staining is found, the lenses should be removed until the following morning, and local antibiotics prescribed for use until bedtime.

Initial wearing time should not be greater than several hours and increase in wearing time should be gradual.

If there is an interruption in the daily wearing of the lenses of more than one or two days, the patient should resume wearing the lenses for several hours and gradually increase his wearing time.

Lenses may be worn for prolonged periods if the fit is good and if they cause no corneal staining, but they should always be removed at bedtime.

Saliva should never be used as a contact lens lubricant.

The lenses should not be worn in the presence of bacterial or herpes simplex infection in any part of the body.

If members of the contact lens wearer's household have bacterial infections or conjunctivitis, care should be taken to avoid the common use of fomites, and the patient should give extra care to the cleansing of his hands prior to inserting his lenses.

Lenses should be kept scrupulously clean and must be properly cleansed with antiseptic wetting solutions prior to insertion.

The patient should be told how to avoid contamination of contact lens solutions.

There are probably a number of unreported cases of severe corneal damage due to contact lenses. It would be of interest to have statistics on the incidence of this complication. Lansche and Lee (1) state that Zimmerman reported no specimens with complications from contact lens wearing were to be found at the Armed Forces Institute of Pathology.

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MISCELLANY

RETIREMENT OF CAPTAIN RUTH A. HOUGHTON, NC, USN

Captain Ruth A. Houghton, NC, USN retired on 1 May 1962 after completing a four-year term as Director of the Navy Nurse Corps, and almost twenty-seven years of naval service.

Her exceptional ability in nursing service administration and personnel management placed her in a leadership position in the Nurse Corps from an early date in her naval career until her retirement. In addition to varied domestic and overseas assignments, she served as Chief of Nursing Service in several of the Navy's largest hospitals: San Diego, California; Bethesda, Maryland; and Base Hospitals #10 and #13 where she was assigned during World War II.

In the complex responsibilities of administering a Corps of over two thousand professional nurses, Captain Houghton's concept of the Directorship was always expressed in terms of improvement of nursing practice and patient care; maintenance of the high standards of the naval service; and promotion of the personal growth and welfare of the individual officers in the Nurse Corps. She enjoyed the confidence and respect of her colleagues in other military and government services as well as those with whom she worked within the Navy and the Medical Department.

In personal tribute to her and her capable leadership as Director, Nurse Corps officers stationed throughout the United States joined with the large number of civilian and military friends and associates who honored Captain Houghton at her farewell reception at the National Naval Medical Center on 25 April 1962.

Recognition of her professional accomplishments during her many years of faithful, efficient service in the Nurse Corps, and the gratitude of the Navy Medical Department, were recorded in a Certificate of Merit presented to her by the Surgeon General of the Navy, Rear Admiral E. C. Kenney, MC, USN on Friday, 27 April 1962, in the presence of Bureau personnel and friends.

Sincere wishes for a wealth of happiness and good fortune in the years ahead are extended to Captain Ruth A. Houghton, NC, USN as she begins her retirement from the naval service.

* * * * *

Captain Houghton's pre-retirement letter which she forwarded to all Nurse Corps Officers of the U.S. Navy and Naval Reserve is reproduced on the following page.



DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
WASHINGTON 25, D. C.

15

16 April 1962

NURSE CORPS OFFICERS OF THE U. S. NAVY AND NAVAL RESERVE

It is with certain regrets, but with a great deal of satisfaction, that I prepare to retire on 30 April 1962 after nearly twenty-seven years of interesting life in the Navy, the highlight of which has been the privilege to serve as Director of the Navy Nurse Corps.

Your accomplishments during the past four years have been a source of continuing inspiration to me as Director; and, I am pleased to have had the opportunity to witness the progress that has been made in the Nurse Corps through your sustained efforts and professional competence.

Foremost in my mind is the excellent nursing care given to patients in our naval activities all over the world. Improvements in living and working conditions have been made for all nursing service personnel. The extension of our education programs benefits our patients, the officers who participate in them, and their associates.

Nurse Corps officers have established a favorable position with other naval officers as well as with their contemporaries in civilian and other government health agencies in emphasizing the merits of personal and professional growth through education, leadership, and service. Your active interest in organizational activities and community health programs is also recognized. In view of your ability and readiness to make the necessary adaptations to current service and professional trends, it is my feeling that each of you undoubtedly shares with me a large measure of satisfaction in the knowledge that as changes take place, progress is made.

My most sincere gratitude is extended to you for your loyal support, dedication to duty, and your perseverance in working toward the goal of improved nursing standards in the Navy Medical Department. I am confident that your excellent record of progress will continue, and that my successor, Captain Ruth A. Erickson, NC, USN, will enjoy the same splendid spirit of wholehearted cooperation I have known as your Director.

You have my best wishes for success and happiness in all of your future endeavors, and I hope I shall have the good fortune to hear from you in the years to come.

With warmest personal regards always.

Ruth A. Houghton
RUTH A. HOUGHTON
Captain, NC, USN

In-Service Training in Tropical Medicine

On 12 May 1962 a Tropical Medicine Course was completed at the U. S. Naval Hospital, NNMHC, Bethesda, Md. The course was planned, sponsored, and coordinated by CAPT F. G. Soule Jr, MC USN, Chief of the Medical Service. All intern, resident, and staff Medical Officers assigned to the Medical Service of the hospital, as well as Medical Officers from other hospital clinical services and the National Naval Medical Center component Commands, were in regular attendance at the course. Lectures and audio-visual aids were presented each Saturday morning from 1030 to 1200, embracing 26 subjects over a period of 11 weeks, as follows:

Malaria	CAPT F. G. Soule MC USN LCDR M. Borowsky MC USN	USNH NMS
Filariasis	CDR L. A. Jackowski MSC USN CDR E. M. Neptune MC USN	NMRI NMRI
Hemorrhagic Fevers Yellow Fever Dengue Sandfly Fever Encephalitides	CAPT F. G. Soule MC USN LCDR M. Borowsky MC USN	USNH NMS
Rickettsial Diseases	CDR J. W. Millar MC USN	BuMed
Trypanosomiasis Leishmaniasis	CDR B. F. Gundelfinger MC USN	BuMed
Schistosomiasis	CDR M. S. Lincicome MSC USN CDR E. M. Neptune MC USN	NMRI NMRI
Cholera Amebiasis Intestinal Parasitism Flukes	CAPT F. G. Soule MC USN LCDR M. Borowsky MC USN	USNH NMS
Leprosy Yaws Pinta Smallpox	CAPT G. T. Anderson MC USN	USNH
Plague Leptospirosis Relapsing Fever Rabies	CAPT F. G. Soule MC USN LCDR M. Borowsky MC USN	USNH NMS

Medical Entomology	CAPT J. D. DeCoursey MSC USN	BuMed
Field Sanitation	LT R. T. Goerner MSC USN	BuMed
Heat Effects	CAPT David Minard MC USN	NMRI and BuMed

Doctor Soule and the faculty are to be congratulated for their wisdom and forward thinking in reawakening interest in and emphasizing the military medical importance of diseases of the tropics. Traditionally, the Medical Department of the U. S. Navy has been strong in tropical medicine training programs, both medical and paramedical. As a natural development, leadership in this field was established by the Navy which gained worldwide recognition. If this position is to be maintained, there is immediate need for our Board-certified Medical Officers in Internal Medicine, Pediatrics, and Preventive Medicine and Public Health to assume the initiative in developing good training programs in diseases of the tropics. Qualified Medical Service Corps Officers can be of great assistance in such programs. This training should be on a continuing basis as an integral portion of internships, residencies, and In-Service Training Programs at home, at sea, and abroad wherever these qualified personnel are stationed. All Medical Officers of all specialties should receive this training if they are to be considered well-rounded and qualified in all aspects of medical support for our combatant forces in times of War or Peace.

When the U. S. Navy and U. S. Marine Corps Forces launched their great amphibious, land, sea, and air offensives in the South Pacific in World War II, tropical disease prevention, control, and treatment immediately became matters of enormous importance and concern for all. Logistic military planners had to give the problem a high priority consideration to prevent decimation of our combatant forces by these diseases, notably malaria. (Ref: USN Medical News Letter, 23 March 1962, Vol 39, No. 6 pps 9 - 12). A desperate situation was relieved only by the concerted efforts of many Medical Department personnel with a practical working knowledge of the problems they struggled with.

With the widespread international commitments of the United States, the theatres of U. S. Naval operations are worldwide and embrace large geographic areas where the gamut of diseases of the tropics may run anywhere from mildly endemic to rampantly epidemic. Therefore, it stands to reason that all officers of the Medical Department owe it to themselves and the Navy they serve to acquire a sound understanding of these diseases in general, and of those most likely to jeopardize military operations in particular.

It is submitted that U. S. Naval Internship and Residency Training Programs and other In-Service On-the-Job Training Programs offer an unexcelled opportunity to incorporate indoctrination in diseases of the tropics. Furthermore, the professional development and military readiness of our trainees would be greatly enhanced. —Editor

* * * * *

Sanitary Science Course

Medical Service Warrant (8171 - 8172) and Medical Service Corps (2301, 2302, 2305) officers are invited to submit applications for the Sanitary Science Course conducted at the University of California, Berkeley, Calif. Applications are particularly desired from officers with less than 16 years of total active service.

The objective of this special course in Sanitary Science for military personnel is to qualify officers to serve in sanitation billets. The curriculum includes courses in environmental sanitation, advanced problems in sanitation, sanitary microbiology of foods and beverages, introduction to occupational health and industrial hygiene, and control of communicable diseases.

Applications must be received in the Bureau of Medicine and Surgery by 1 August 1962. Application procedures are set forth in paragraph 8 of BUMEDINST 1520.12A; however, cost estimates need not be submitted.

(Medical Service Corps Div, BuMed)

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BUMED INSTRUCTION 6322.6B

23 April 1962

Subj: Dependents' medical care outside the United States and Puerto Rico;
payment of charges for

Purpose. This Instruction prescribes procedures for payment of authorized medical and dental care furnished spouses and children of active duty members of the Navy and Marine Corps by civilian physicians and hospitals outside the United States and Puerto Rico.

Cancellation. BuMed Instruction 6322.6A (NOTAL) is superseded.

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Meeting of Chicago Surgical Society

On 6 April 1962, Rear Admiral Frank P. Kreuz MC USN, Commanding Officer, Captain Felix P. Ballenger MC USN, Chief of Surgery, and members of the Surgical Staff of the U. S. Naval Hospital, Great Lakes, Ill., were hosts to the Chicago Surgical Society. Approximately 80 civilian surgeons from the Chicago area attended the program of operative clinics and scientific papers.

Featured in the program was a panel discussion covering the major problem of pneumonia at Great Lakes and its complications. Presentation and analysis of 130 cases of post-pneumonia bronchiectasis were given as the most common surgical complication.

Following a guest luncheon, Society members made an inspection tour of the new hospital facilities. The program follows:

PRESIDENT . . . DR. R. KENNEDY GILCHRIST
 VICE-PRESIDENT . . . DR. CHESTER C. GUY
 SECRETARY . . DR. FREDERICK W. PRESTON
 TREASURER . . . DR. PAUL V. HARPER
 RECORDER . . . DR. PAUL F. FOX



COUNCIL MEMBERS
 FRANCIS H. STRAUS
 JOHN L. KEELEY
 WALTER G. MADDOCK

CLINICAL AND SCIENTIFIC PROGRAM
OF THE
CHICAGO SURGICAL SOCIETY
 FRIDAY, APRIL 6, 1962

U. S. Naval Hospital, Great Lakes, Illinois, Buckley Road (Route 137) at Sheridan Road
 (Highway 42)—DELTA 6-3500 Extension 2566.

Frank P. Kreuz, Admiral, MC, USN, Commanding
 Felix P. Ballenger, Captain, MC, USN, Chief of Surgery

8:00 - 10:00 A.M. — Operative Clinic, Second Floor, U. S. Naval Hospital

10:00 - 11:00 A.M. — Presentation of Scientific Papers, Medical Library Conference Room, Rm. SB-200-Y.

Welcome—Frank P. Kreuz, Admiral, MC, USN

1. Resection of Cavitory Lesion of Pulmonary
 Cryptococcosis with Apparent CureD. W. Hopping, Lt., MC, USN
 F. P. Ballenger, Capt., MC, USN
2. Villous Adenoma of the Rectum with Severe
 Fluid and Electrolyte ImbalanceJ. I. Dickinson, Lt., MC, USNR
3. An Uncommon Cause of Mass on the Dorsum of
 the Hand; The Extensor Digitorum Brevis
 Manus MuscleA. W. Dunn, Capt., MC, USN
4. Review of Morbidity and Mortality with
 Cesarean SectionB. L. Hawks, Capt., MC, USN

11:00 A.M. - 12:30 P.M. — Panel Discussion of the Acute Problem of Pneumonia and its Complications at Great Lakes, Illinois.

1. The Incidence of Pneumonia in Hospital
 Admissions at Great Lakes and its Complications....G. H. Tarr, Jr., Capt., MC, USN
2. Bronchoscopic Evaluation of Complicated Cases.....G. W. Hurst, Capt., MC, USN
3. Roentgenographic Findings in the Pneumonias
 and their Complications, Including
 Bronchographic InterpretationsJ. Paul, Cdr., MC, USN
4. Bacteriologic Studies in Pneumonias and in the
 Complicated CasesL. F. Miller, Capt., MC, USN
5. Pathologic Findings in the Operated
 Complicated CasesW. F. Pierce, Capt., MC, USN
6. Review of the Empyema Cases and their
 TreatmentJ. A. Langevin, Lt., MC, USN
 F. P. Ballenger, Capt., MC, USN
7. Review of the Bronchiectasis Cases and
 Surgical TreatmentD. L. Williams, Lt., MC, USN
 F. P. Ballenger, Capt., MC, USN

From the Note Book

Eleventh Armed Forces Obstetrics - Gynecology Seminar. The Eleventh Annual Armed Forces Obstetrics and Gynecology Seminar will be held at the United States Naval Hospital, Great Lakes, Ill., October 22 - 25, 1962. For further information write to CAPT B. L. Hawks MC USN, U. S. Naval Hospital, Great Lakes, Ill.

Commendation to LCDR J. W. Duckworth MSC USN. The following letter of commendation in lieu of Concurrent Fitness Reports for the period 24 February 1960 to 29 November 1961 has been awarded to LCDR James Walter Duckworth MSC USN by Vice Admiral John T. Hayward USN, Deputy Chief of Naval Operations (Development).

Rear Admiral Edward C. Kenney MC USN, Surgeon General, U. S. Navy, relayed the commendation to LCDR Duckworth with the following statement:

"As Surgeon General of the Navy, I find it most gratifying that your outstanding performance in a difficult mission of such importance is acknowledged by this Letter of Commendation. You may take just pride in an accomplishment which reflects so favorably on the Medical Department of the Navy and which deserves so richly the traditional "WELL DONE. "

The Letter of Commendation reads:

"In February 1960 you were ordered to report to the Director of the Lawrence Radiation Laboratory at Livermore, California. You were directed to establish liaison with all knowledgeable groups in the area to develop a set of specifications which would allow the diversified radiation potential of a linear accelerator to be adapted to the exacting requirements of biomedical research; this instrument to complement the nuclear reactor and radiation sources complex contemplated for the Armed Forces Radiobiology Research Institute. Since this Institute was established by the Department of Defense to provide the Armed Forces with the capability of studying, under controlled laboratory conditions, the biologic effects of nuclear radiations, the entire project's fate depended largely upon the successful accomplishment of your assigned mission.

With a minimum of guidance, and by diligent application of your special talents, you have succeeded in formulating design characteristics and specifications for a linear accelerator of unique capabilities and with a tremendous potential for the performance of biomedical and related studies. Your recommended design for this instrument is beautifully tailored to the projected scope of AFRRI development. In fact, your endeavors have already had a substantial impact on, and been recognized as a progressive achievement for, this phase of the radiation sources industry.

You have displayed excellent initiative and foresight during this assignment and have set an example of industry, dignity, and officer-like qualities which reflect the highest standards of the Armed Services. It is with considerable pleasure that I award you this Letter of Commendation for your outstanding services. "

Joint Orthopedic Clubs Meet at USNH Philadelphia. The U. S. Naval Hospital, Philadelphia, Penna., was host to the combined meeting of the Philadelphia-New York Orthopedic Clubs on 23 March 1962. A full afternoon meeting was followed by refreshments and dinner with a total of 125 orthopedic surgeons and residents attending. The group was welcomed by CAPT J. A. Syslo MC USN, Commanding Officer. The following extremely interesting papers were presented: (1) "Reconstruction of the Hand Following Ischemic Contracture of the Forearm" by Dr. James Hunter. This paper was discussed by Dr. Robert E. Carroll of New York City; (2) "The Interpretation of Somatic Pain" by Dr. Frank A. Elliott; (3) "The Divorce Phenomenon as it Relates to Orthopedic Surgery" by Dr. Warner D. Bundens Jr., and Dr. E. R. Bowman Jr.; and (4) "Orthopedics in Jordan" by Dr. John Joyce.

Japanese Doctors Visit USNH Yokosuka and USS CORAL SEA. Sixty-seven doctors from the Yokohama Medical Society, headed by Dr. Misao Kurihara, Chief, Medical Science Division, toured the Yokosuka Naval Hospital on 10 April 1962. Following a briefing on the functions of the hospital by CAPT Marion E. Roudebush MC USN, Executive Officer of the hospital, the group toured the hospital complex using Japanese interns as interpreters. The tour ended with refreshments in the hospital dining hall. After the hospital visit, the doctors toured the attack aircraft carrier USS CORAL SEA in port at Yokosuka. The tour was the first in a program set up by the Yokohama Medical Society in an effort to acquaint Japanese doctors with clinical practices employed by U. S. Forces' hospitals in Japan. (From CNFJ - PIO, 12 April 1962)

Precedent Set by Doctor Rivera. LT Julio C. Rivera MC USN achieved distinction on 6 April 1962 when he became the first Puerto Rican in naval history to receive the designation of Submarine Medical Officer. "Dolphins," the hard earned insignie of the Navy's underwater fleet, were pinned on LT Rivera by CDR N. E. Nickerson USN, Officer-in-Charge of the Navy Deep Sea Diving School and Experimental Diving Unit, U. S. Naval Weapons Plant, Wash., D. C.

Dr. Rivera took his Bachelor of Science degree at the University of Maryland, and was awarded the degree of Doctor of Medicine from the University of Puerto Rico Medical School in 1958. He was commissioned an Ensign in the U. S. Navy while in medical school and promoted to Lieutenant upon graduation. Dr. Rivera served his rotating internship at the U. S. Naval Hospital, St. Albans, N. Y., and had one year of duty aboard the USS CAPRICORNUS before entering Submarine School at New London, Conn. Part of his training while at the Submarine School included the Deep Sea Divers School in Washington, D. C. Upon completion of Submarine School, LT Rivera served at the Naval Medical Research Laboratory at the New London Submarine Base for six months before being assigned to his present duty as Instructor in Underwater Physiology and Diving Medicine at the Divers School. (TIO, BUMED NEWS, 18 April 1962)

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DENTAL**SECTION**

Relation Between Smoking Habit and
Presence of Streptococci

Milton D. Saslaw and Murray M. Streitfeld, Medical Research Center, University of Miami School of Medicine, Miami, Fla. Desinfiziert der Tabakrauch. Bl. Zahnk 22:141, Aug. 1961. Dental Abstracts 7(3):156-157, March 1962.

Epidemiological studies on beta hemolytic streptococci, conducted at the University of Miami School of Medicine, provided an excellent opportunity to investigate any possible relation between the smoking habits of 1,815 adults and the prevalence of streptococci in the oral cavity and the throat.

Data on the smoking habit were collected at the same time as the mouth and throat were swabbed for the isolation of streptococci. Venous blood samples were collected to determine the presence of streptococcal antibodies.

Analysis of the findings from mouth and throat swabbings showed that beta hemolytic streptococci were isolated from present smokers almost twice as often as from nonsmokers and past smokers. The difference was statistically significant.

Group A streptococci were isolated more frequently from mouths and throats of smokers, but this difference was not statistically significant.

Antistreptolysin O investigations (performed in 1,611 samples) revealed that no appreciable differences existed between the titers of serum from smokers and those of nonsmokers.

The established higher frequency of streptococcal isolation in the mouth and throat swabbings of smokers possibly is caused by a specific effect of the tobacco smoke on the streptococci or on the mucous membrane barrier of the host.

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Curettage in the Treatment
of Marginal Periodontitis

Arthur Feil, St. Gallen, Switzerland. Erfahrungen mit Curettage bei Parodontitis marginalis. Schweiz. Mschr. Zahnk. 71:783-786, Aug. 1961. Dental Abstracts 7(3):172, March 1962.

The presence of marginal periodontitis or gingivitis often necessitates the removal of inflamed periapical and granulation tissues without excision of the root apexes.

In patients with periodontal pockets up to 4 mm deep, curettage can reduce significantly the depth of these pockets. Deeper and larger periodontal pockets, however, should be eliminated surgically.

Because the accessibility and visibility for curettage of periodontal pockets are sometimes difficult to obtain by simple insertion of an instrument through the gingivomarginal opening, the creation of a semilunar flap is recommended. An apically curving incision should be made, beginning and ending beyond the region of involvement. The height of the incision should be beyond the pocket, so that the entire periphery of the flap is on healthy osseous tissue.

The advantages to be gained by this procedure are:

1. An adequate exposure of the entire operative field.
2. Complete accessibility of all types of instruments to be used.
3. An increased possibility of smoothing adequately all involved soft tissues.
4. Preservation of a sufficient blood supply to the gingival tissues.
5. An increased freedom from difficulties in performing periapical or subgingival curettage.
6. An adequate shrinkage of the involved gingival margin, all of which will be reduced to a minimum after healing.
7. An uncomplicated healing, after postoperative treatment with astringents, oxygen baths, and adequate home care (proper toothbrushing methods and regional stimulation).

In all instances in which this flap technic for curettage has been employed, there were no relapses attributable to the incisions of the marginal gingivae or to the removal of the diseased tissues.

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Postoperative Care of Lower Third-Molar Sockets

Jour. Calif. Dental Assoc. and Nevada Dental Soc. 36:437-439, December, 1960. Year Book of Dentistry, 1961-1962 Series, pp. 237-238.

Galen L. Albertson (Univ. of California) compared results of treatment with two socket dressing materials in 200 patients with mandibular impacted 3rd molars. All teeth were removed under local anesthesia. A dressing, placed in each socket, was removed on the 3rd postoperative day and was either left out or reinserted depending on the degree of healing present. Postoperative follow-up was done every 3 or 4 days until healing was complete.

In 100 patients, a socket dressing of iodoform gauze impregnated with benzocaine ointment was used. In the other 100, the dressing consisted of iodoform gauze impregnated with 3% Terramycin hydrochloride and 1% Hydrocortone in a petrolatum base. Results were judged on the basis of edema, trismus, evidence of infection and pain.

Patients treated with the iodoform-benzocaine dressing required an average of 3.8 socket dressings, whereas those receiving the Hydrocortone-Terramycin dressing required an average of 1.7. Trismus, pain and edema

were less common in the latter group, and percentage of postoperative infections was considerably less. In the few cases of septic socket which were treated with this dressing, no foul odor occurred and symptoms were controlled within a short time. No local conditions that would contraindicate its use were noted.

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Personnel and Professional Notes

Capt Denen Presents Lecture. Capt Harry E. Denen, DC, USN, U.S. Naval Air Station, Pensacola, Florida, appeared before the Greater Pensacola Dental Society on 9 April 1962, and presented a lecture entitled Practical Prosthodontics. His lecture was illustrated with colored slides and a clinical demonstration.

Inspector General, Dental, to Conduct Survey. The Inspector General, Dental, will conduct comprehensive surveys of dental facilities in the Far East and the Fourteenth Naval District during the period 29 April - 7 June 1962. The survey team will consist of Rear Admiral R. W. Taylor, DC, USN and Lieutenant O. B. Wetzel, MSC, USN, both of the Office of the Director, Naval Dental Activities, Field Branch, BUMED, Pacific Coast, San Francisco, California.

Naval Dental Officers Elected. On 5 April 1962, in Indianapolis, Indiana, 3 Naval Dental Officers were elected by the American Academy of Oral Pathology to its Council at the annual meeting of the Academy. Capt Louis S. Hansen, DC, USN, Chief, Dental and Oral Division, Armed Forces Institute of Pathology, was elected Vice-President; Capt Robert A. Colby, DC, USN (Ret.), Professor of Pathology, Georgetown University, and Capt Henry H. Scofield, DC, USN, Chief, Oral Pathology Division, U.S. Naval Dental School, were elected Councillors at large.

Examination Results at NDC Phila. The Navy-wide competitive examinations conducted at the U.S. Naval Dental Clinic, Philadelphia, resulted in 100% of those participating in the examinations being advanced in rating on 16 May 1962.

As a matter of interest, examinations conducted from February 1961 to date have produced the following results: Of the total number of personnel participating, 92.6% passed the examinations and 81.4% have been advanced in rating.

New London Dental Officers Host Connecticut Dentists. The New London County Dental Association was hosted at its March meeting by Dental Officers of the U. S. Naval Submarine Base, New London, Groton, Connecticut. Sixty (60) dentists of the county association were present, as were Dental Officers on duty with the United States Coast Guard and Dental Officers of the U.S.

Naval Reserve. Capt H. B. McInnis, DC, USN addressed the group and introduced the principal speaker LCdr E. H. Ninow, MC, USN. Doctor Ninow spoke on Mouth to Mouth Resuscitation. Preceding a buffet dinner at the Commissioned Officers' Mess, the guests were given a conducted tour of the new 20 unit dental facility recently completed at the Submarine Base.

Naval Dental School Officers Appear at Meetings. The following Dental Officers on the staff of the U. S. Naval Dental School, NNMC, Bethesda, Md., recently gave presentations as shown: Capt L. M. Armstrong, DC, USN and Capt C. L. Bohn, DC, USN presented a table clinic and lecture "Operative Dentistry" to the Erie County Dental Society, Erie, Pennsylvania. Capt G. W. Ferguson, DC, USN presented a lecture "Restorations Using Silver Amalgam" to the Ontario Dental Nurse Association, Toronto, Canada. Capt J. E. Flocken, DC, USN presented a television workshop "Teaching of Impression Techniques for Fixed Prosthesis" and a paper "Preventing Crown and Bridge Failures." Capt S. E. Spann, Jr., DC, USN presented a table clinic "An Improved Method of Fabricating Acrylic Veneer Crowns - Ledgelack Techniques" to the Maryland State Dental Association, Baltimore, Md. Capt H. J. Towle, Jr., DC, USN presented "Mister Disaster" (a presentation of a manikin in casualty treatment) to the Oklahoma State Dental Association, Oklahoma City, Oklahoma.

Course in Preventive Dentistry Held at NNMC. During the week of 26-30 March 1962 a course in Preventive Dentistry was held at the U. S. Naval Dental School, NNMC, Bethesda, Md. This course focused attention on the cause, pathology, and incidence of dental disease as well as practical methods for prevention and control. The course was presented by personnel of the U. S. Naval Dental School, and the U. S. Naval Medical Research Institute, in addition to a number of guest lecturers.

The latter included Dr. Albert Russell, Chief of the Epidemiology Branch of the National Institute of Dental Research, National Institutes of Health, who spoke on the distribution of dental caries and the state of dental health. Dr. Walter J. Pelton, Chief of the Manpower and Education Branch, Division of Dental Public Health and Resources, U. S. Public Health Service, spoke on the manpower situation in relation to dental caries. Dr. David B. Scott, Chief of the Laboratory of Histology and Pathology of the National Institute of Dental Research, discussed the pathology of dental caries. Dr. Basil G. Bibby, Director of the Eastman Dental Dispensary of Rochester, New York, presented a series of lectures on the etiology of dental caries, covering susceptibility, carbohydrates, and oral enzymes. Dr. Philip Jay, Professor of Dentistry of the University of Michigan, Ann Arbor, Michigan, presented a series of lectures on the prevention of dental caries, particularly emphasizing dietary control. Dr. Paul Keyes, of the Laboratory of Histology and Pathology and Dr. Robert Fitzgerald, Chief of the Germfree Research Section of the National Institute of Dental Research, discussed the infectious nature of dental caries. The week's course closed with a series of lectures by Dr. Joseph C. Muhler, Professor of Biochemistry, Indiana University Dental School, Indianapolis,

who discussed the practical application of caries prevention procedures for the office, the home, and the school.

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PREVENTIVE MEDICINE

Malaria Surveillance - United States - 1961

US DHEW PHS Morbidity and Mortality Weekly Report 11(14): 106-107,
13 April 1962.

In 1961, reports on 85 cases of malaria were received from 25 states, the District of Columbia, and the military services.

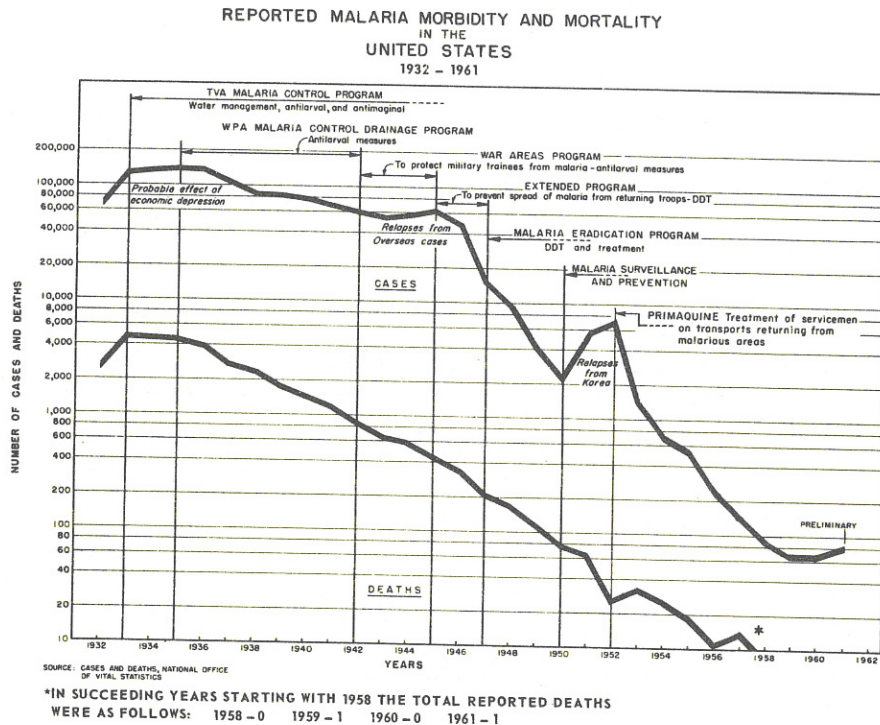
Analysis of the 85 cases reveals that 72 were reported as "confirmed" on the basis of a positive blood smear. The remaining 13 cases were classified as presumptive; in these, clinical and epidemiological evidence suggested malaria but confirmation by blood film was lacking. Plasmodium vivax was diagnosed in 60 cases; Plasmodium falciparum in 11 cases; and Plasmodium malariae in 3. The type of parasite was not identified in the remaining 11 cases.

Five of the cases were classified as indigenously acquired and 2 were reported as recurrences of previous infections. Blood transfusions are believed to be the vehicle for infection in 1 of the indigenous cases. In 1 other indigenous case in a drug addict, a contaminated needle and syringe was believed to be the source of infection. Despite a number of epidemiological studies, the source of infection in the remaining indigenously acquired cases could not be determined.

Of foreign origin were 78 of the 85 cases reported; 33 were in civilians, 26 of whom were Americans traveling abroad and 7 were visitors to this country. Forty-five cases of foreign origin occurred in military personnel who had been stationed overseas. One death was reported as directly attributable to malaria.

The reported malaria morbidity and mortality in the United States from 1932 through 1961 are depicted in the graph. The morbidity curve for the past 4 years approaches a straight line and reflects disease acquired almost exclusively outside of the United States. Malaria remains a major health problem in many parts of the world. Increasing contact with such areas, both of U.S. military and civilian populations, may maintain the morbidity curve

at its present level, with minor fluctuations, depending on the progress of eradication throughout the world.



During the last 3 months of 1961, a series of 6 cases of typhoid fever occurred in Florida, Georgia, and Alabama, which subsequent investigation linked to a common source. The first 5 cases occurred during the 17-day period, 16 October to 1 November; the 6th case experienced onset of symptoms on 19 December 1961. All had consumed raw oysters during the appropriate incubation period. The oysters consumed by the first 5 cases appear to have been processed by a single oyster shucking plant in Florida; those consumed by the 6th case were taken from an oyster bed from which the processing plant also received oysters.

Cultures obtained from each of these 6 cases have grown *Salmonella typhosa*, phage type A. Bacteriologic studies carried out by the Communicable Disease Center, PHS, Enteric Bacteriology Unit reveal that each possesses a peculiar insusceptibility to an unadapted mutant of Vi phage II isolated previously at the CDC laboratory. (Except for strains associated with this outbreak, all

typhoid organisms of phage type A tested at CDC thus far have proven susceptible to this phage.)

The first of the cases occurred in the wife of the owner of the oyster processing plant. The patient, who worked as an oyster shucker became ill on 16 October. A second case occurred on 23 October in a 35-year-old woman also employed as a shucker at this plant. Both of these women frequently consumed oysters raw while engaged in shucking operations. A third case occurred on 30 October in a 21-year-old Negro male, the brother-in-law of the maid, who works for the owners of the oyster plant. He is known to have frequently consumed food, including raw oysters, obtained from the owner's house.

Age	Sex	Date of Onset	Residence	Occupation
		1961		
28	F	16 Oct.	Apalachicola, Fla.	Shucker, wife of owner
51	M	20 Oct.	Meigs, Ga.	Farmer
35	F	23 Oct.	Apalachicola, Fla.	Shucker
21	M	30 Oct.	Apalachicola, Fla.	Brother-in-law of maid for owner
10	M	1 Nov.	Phenix City, Ala.	Student
51	F	19 Dec.	Valparaiso, Fla.	Housewife

Since oysters from this shucking plant were known to have been shipped during this period primarily within Florida and to Georgia and North Carolina, all typhoid cases of phage type A in these states were intensively investigated by the respective State Health Department authorities and CDC epidemiologists. In Georgia, during the preceding 6 months, only 1 case known to have been caused by a phage type A was recorded, having occurred on 20 October in a 51-year-old white male farmer from Meigs, Georgia. The patient regularly consumed large quantities of raw oysters purchased from a grocery store in Meigs. It was established that this store is supplied by a trucker who distributes oysters processed by the Florida shucking plant. A review of North Carolina cases revealed only 1 case to be of phage type A. This occurred in a non-oyster consumer; the organism did not show the unique phage typing characteristics common to the other strains.

Investigation about this time of a reported focal outbreak of typhoid cases in Phenix City, Alabama, revealed one bacteriologically confirmed and several suspect cases. The confirmed case was in a 10-year-old white boy who became ill on 1 November, having consumed oysters on-the-half-shell at

2 restaurants in Columbus, Georgia, on 22 October. Both restaurants were supplied by a single distributor who retained no records of purchases or shipments; the bulk of the oysters he receives are derived from Florida and, from known distribution patterns, could have been obtained from the suspect oyster processing house.

Intensive investigations, both epidemiological and laboratory, were carried out by the Florida State Board of Health, including the processing of over 1500 cultures of case contacts and employees of oyster shucking houses plus cultures of oysters, bay water, drinking water and sewage. One specimen only revealed S. typhosa. This was from a previously unknown typhoid carrier, a 67-year-old oyster tonger who worked alone and sold oysters exclusively to the single processing plant involved. The organism isolated from him was phage type A and, like those from the cases, was uniquely insusceptible to the unadapted mutant Vi phage II.

Intensive investigation of all typhoid cases occurring since early 1961 was continued by the Florida State Board of Health and no additional related cases were discovered until 19 December. On that date, a 51-year-old white female whose home is in Valparaiso, Florida, developed an enteric illness later identified as typhoid fever. S. typhi were recovered from her stool. Phage testing at CDC revealed it to have the same characteristics as those obtained from others in the outbreak. The woman had eaten raw oysters on the half-shell on 5 December; these were traced to their source, the same bay from which the other oysters were derived. They had been harvested on either 28, 29, or 30 November; the tonger collecting these oysters worked in the same portion of the bay covered by the proven typhoid carrier. No other relationship could be established between these oysters and the known carrier or the other 5 cases; further studies are still in progress.

The oyster processing plant was closed immediately after the initial case was recognized; oysters in distributional channels were confiscated.

Intensive investigations of the entire oyster industry in Florida have revealed no evidence of additional sources of contamination with enteric pathogens. (Reported by the Director, Bureau of Preventable Disease, Florida State Board of Health; Director of Epidemiology Service, Georgia Department of Public Health; Director of Preventable Diseases, Alabama State Department of Public Health; Assistant Director, Division of Epidemiology, North Carolina State Board of Health; and the Staff of the Communicable Disease Center, Atlanta, Georgia.) (CommDisBr, PrevMedDiv, BUMED)

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The New York City Board of Health has ordered the closing of eight tattoo parlors. Since mid-1959, 30 cases of hepatitis, with one death, were traced to their tattoo needles.

The regulation does not affect tattooing by physicians or osteopaths nor the tattooing of animals. (US DHEW PHS Public Health Reports 77(2):164, February 1962)

Blankets and Air Hygiene

A report of a trial of blanket disinfection by a Newcastle Regional Hospital Board Working Party. J Hyg 60(1):85-94, March 1962.

Blankets have long been suspected of playing an important part in hospital infection. The suspicion is based on the knowledge that they are rarely washed after each use by long successions of patients and that they often harbour enormous numbers of bacteria, including the now troublesome Staphylococcus aureus. Evidence is accumulating that direct infection of a patient from the blankets under which he lies is uncommon, and that cross-infection from carriers among the hospital staff and self-infection from the patients' own noses are more important. Contamination of the air in a hospital ward is, however, often profuse during bed-making and the possibility remains that this is a factor in creating nasal carriers of Staph. aureus among patients and staff, from whom self-infection and cross-infection then occur.

It has been suggested that blankets should be washed after use by each patient, in the hope that this will reduce the load of organisms in them, and thus reduce aerial contamination in the ward, the number of Staph. aureus carriers and, eventually, the amount of staphylococcal sepsis. There are conflicting reports on the efficacy of blanket disinfection in achieving this ultimate purpose and the present investigation was not an attempt to settle this matter directly. It was planned to determine whether or not regular blanket disinfection can reduce the amount of aerial contamination and therefore whether a reduction of carrier rates and sepsis can even be hoped for. A second purpose of the investigation was to study the economics of disinfecting blankets and the acceptability, to patients and staff, of some new types of blanket that have been introduced because they are easier to disinfect than the conventional woolen ones.

The method of air sampling used in this trial is far from perfect. Contamination of exposed culture plates is influenced proportionately more by large than by small dust particles and these latter may be important in the creation of nasal carriers of Staph. aureus. It might, therefore, have been more satisfactory to use slit-samplers for this study. However, they were not available in all the participating units, so the possible fallacies of sedimentation sampling had to be accepted. Though this method could not exactly measure aerial contamination under the various conditions of the trial, it probably did provide a reasonable means of comparison.

During the trial, disinfection of blankets after use by each patient caused only a small and probably insignificant reduction of aerial contamination. This may mean that blankets are not important agents in the aerial distribution of bacteria and therefore that airborne infection will not be reduced by disinfection of blankets.

Another and perhaps more likely explanation is that the rapid recontamination of clean bedding after it is put into use nullifies the benefit of disinfection. In a separate study, this possibility was examined by making daily

sweep-plate counts from blankets that had been put into use immediately after disinfection by heat. They were heavily contaminated after one day's use and were indistinguishable from non-disinfected blankets after 8 days. This difficulty might be overcome by providing clean bedding for each patient every day, but the cost of this would be very great. A chemical process conferring self-disinfecting properties on the blanket fibres might delay recontamination and thus provide a more economical solution, but the quaternary ammonium compound used in this trial did not do so. Earlier work on quaternary treatment of blankets has shown that enough disinfectant remains in the fibres to inhibit staphylococci on a culture plate (Barnard, 1952; Blowers & Wallace, 1955). But, as already shown by Rubbo, Stratford & Dixon (1960), this residue is evidently unable to destroy bacteria in dry dust particles.

This trial has yielded no convincing evidence of bacteriological benefit from present methods of blanket disinfection, but has not ruled out the possible advantage of even more frequent disinfection, or a method of chemical disinfection with a prolonged action. There is, however, a growing body of opinion that, sepsis apart, patients are entitled to clean bedding. The calculation of its cost during the trial may therefore be of more than theoretical interest. Regular washing and disinfection of blankets increases their laundering and replacement costs between three and fourfold. One of the blankets used in the trial—cotton cellular—was more popular with patients and nurses and was more economical than the conventional woolen blanket or any of the other new types. There may, therefore, be some benefit in its general adoption quite apart from the reason for which it was originally tried—its ease of disinfection.

Summary

1. The effect of blanket-disinfection on aerial contamination of exposed culture plates was studied during a six-month trial in six hospital units, containing a total of 270 beds.
2. Disinfecting blankets after use by each patient did not significantly reduce general bacterial or Staph. aureus counts on exposed culture plates.
3. Disinfected blankets were heavily recontaminated after only a few days' use. A quaternary-ammonium rinse during laundering conferred no self-disinfecting properties on them.
4. Cotton-cellular blankets were more economical and more popular with patients and nurses than were conventional woolen and two other types of cotton blanket.

* * * * *

Military Motor Vehicle Accident Toll

OIR, Dept. of Navy. Safety Review 19(4):8, April 1962.

The Bureau of Medicine and Surgery reports that, during the 1960 calendar year, 506 Navy and Marine Corps personnel were killed and 5,509 were admitted to the sick list (with an average hospitalization period of 43 days) as a

result of automobile accidents. Of the 5,509 injured by automobile accidents, 92 were on the sick list for more than 200 days, and 14 were hospitalized for more than 300 days (or a total number of days lost equaling a little over 13 years).

The 14 cases of hospitalization of at least 300 days each were the result of 5 collisions and 9 instances of the driver running off the roadway (the leading cause of motor vehicle accidents). These accidents, in turn, caused: 12 fractures, 1 brain concussion, and 1 joint dislocation.

Motor vehicle accidents take a terrific toll of Navy and Marine Corps personnel each year. Long periods of hospitalization, loss of the ability to continue their regular work for varying periods of time (sometimes even medical retirement from the service), and many hours of suffering and anxiety to themselves and their loved ones result from such accidents. The military services have spent many thousands of dollars training these individuals; now adequate replacement personnel must be found and trained at additional cost to the Government.

All military personnel must make every possible effort to reduce the number of motor vehicle accidents and resultant loss of manpower and equipment. Remember—on your next long weekend or vacation trip, or just ordinary day-to-day driving—drive carefully and respect other people.

* * * * *

Venereal Disease Control — A World-Wide Challenge

LCdr Charles H. Miller, MC, USN, Preventive Medicine Division, BuMed.

Recent articles in the press, as well as official reports from the Public Health Service, U.S. Department of Health, Education, and Welfare, have expressed concern over the rising incidence of syphilis in the United States. The incidence of gonorrhea is increasing also, but to what extent is difficult to determine due to inadequate reporting procedures. Articles and editorials in various professional publications have reported increases in rates for infectious venereal diseases in several parts of the world. The greatest increase of venereal disease is reported in the 15-25 year age group. This same age group comprises a large proportion of Navy and Marine Corps personnel.

The Medical Department of the U.S. Navy is presented with a challenge to help reduce venereal disease rates among personnel of the Navy and Marine Corps. The control of venereal disease is a command responsibility; however, the Medical Department of the Navy is obligated to provide medical information regarding these diseases. This should be considered as an opportunity to assist in improving the health of people throughout the world. The information presented should be interesting, varied, and above all, factual. Medical Department personnel at U.S. Navy Preventive Medicine Unit No. 2 in Norfolk, Virginia, have stressed social maturity. Teams from Preventive Medicine Unit No. 7, Naples, Italy, have emphasized factual medical information regarding the hazards of venereal infections and have attempted to alert personnel

as to the "modus operandi" of purveyors in cities of the Mediterranean littoral. Only trial and error will provide the best approach for your ship or station.

The Medical Department is obligated to diagnose and treat infected personnel. Another challenge presents itself in this area. It is possible for a woman to be infected with more than one type organism; therefore, her male partner may contract multiple disease. Diagnosis cannot be considered complete without performing serological tests for syphilis upon all individuals reporting with complaints suggestive of any venereal disease. Specimens of blood should be obtained prior to definitive treatment and at intervals of one, three, and six months following completion of treatment.

Military personnel may attempt to keep entries regarding venereal diseases out of their records. Personnel assigned to stations or ships operating in areas where antibiotics can be purchased without a prescription, or where it is especially convenient to get treatment from sources other than the Medical Department, present a unique challenge. Under these circumstances, the medical officer should recommend occasional unscheduled medical examinations, including serological surveys.

Identification and adequate treatment of personnel with venereal diseases may well prevent an epidemic of unforeseeable magnitude. The Navy Medical Department has an opportunity to assist in controlling one of the oldest diseases known. We must accept this challenge!

* * * * *

Staphylococcal Sepsis in Mothers and Newborn Babies

M. S. Spink, Department of Pathology, Royal Infirmary, Blackburn, England. J Hyg 60(1): 105, March 1962.

Although the main purpose of the investigation described in this article was the assessment of a method designed to control the incidence of mammary infections in a maternity unit, the results have also provided information of value and interest on several problems that arose during the study. Much of this information was not essentially new but it served to emphasize the importance of considering, when investigating any hospital outbreak of infection, every possible source from which infection could be spread to the patients concerned. In the present study the possibility of new staphylococcal nasal carriers or the relapse of treated carriers in the nursing staff had been foreseen and provision for this was included in the plan. The importance of the nurse-carrier has been shown by Rountree & Barbour (1951), Gould & McKillop (1954), Lepper, Jackson & Dowling (1955) and other workers. It had been hoped that the routine swabbing of the noses of all members of the nursing staff, with neomycin-hibitane cream treatment where necessary, and the strict use of the "mask and gown" technique would largely deal with this hazard. But in spite of the fact that the treatment of the nasal carrier with the cream was almost immediately effective, relapses occurred after an irregular

and unpredictable interval so that, however well the routine nose-swabbing scheme was arranged, in practice dangerous dissemination of staphylococci could occur before it was recognized and effectively treated. In addition there was the previously unappreciated hazard among hospital staff, not thought to have contact with patients, who might be staphylococcal carriers. The influence of these two groups of persons on the true assessment of the method under trial is obvious from the results obtained; at certain stages in the trial the unexpected emergence of an uncontrolled source of infection upset the figures and had it not been for the fact that the experiment was prolonged beyond the original year a satisfactory conclusion might not have been possible.

Cunliffe (1949) showed how readily the nasal mucosa of infants is colonized by staphylococci in the first few days of life and Parker & Kennedy (1949) demonstrated the high infectivity, to other patients in a hospital ward, of such infants. But although a significant proportion of infants in maternity hospitals acquire staphylococci either from other infants, nurses or various additional sources, the actual percentage carrier rate found at any one time is influenced by the degree of general cross-infection. Nevertheless, there appears to be another factor that plays a part of some importance: if there is early colonization of the nasal mucosa by Staph. albus instead of Staph. aureus, the organism seems to be able to establish itself sufficiently well in a large number of cases so that it is able to resist subsequent invasion by the more dangerous variety. The figures obtained in the present study fully support this thesis. Lepper et al. (1955) made observations of a similar sort regarding student nurses. Anderson, Coulter & Keynes (1961) suggested the direct inoculation of the nasal mucosa of Staph. aureus-carriers with cultures of a selected strain of Staph. albus, after the original infecting organism had been cleared by a suitable antibacterial preparation, as a possible means of obtaining a more permanent protection for young nurses against invasion by coagulase-positive staphylococci to which they later would be exposed.

Recent studies by Simpson, Tozer & Gillespie (1960) and Corner, Crowther & Eades (1960) have drawn attention to the part played by the unprotected umbilical stump in disseminating Staph. aureus. Whatever part the umbilical stump may play in the spread of infection in maternity hospitals, and under certain conditions it might be considerable, in the present study there was no evidence sought in this field. The standard Sterzac powder treatment of the umbilicus was applied equally to every infant whether in the test or control group and it was assumed that this source of infection was blocked in both groups.

In the early stages of the outbreak the predominance of type 80 made it difficult to trace sources of infection by the phage-typing method, but during the period of the controlled trial other phage types were fairly frequent and there was more reason for accepting the evidence that almost three-quarters of the septic conditions, including the mammary infections, could be related to the particular strain of Staph. aureus colonizing the nasal mucosa of the infant.

A serious outbreak of staphylococcal infections in the maternity units in Blackburn, England, was investigated. There were considerably more than

100 cases of breast abscesses altogether, well over half of which occurred in primiparae. Staphylococcus aureus, phage type 80, was the predominating organism throughout the outbreak. At the peak period during the early part of the outbreak, this type was responsible for nearly 80% of the infections.

After the introduction of a number of procedures for the general reduction of cross-infection the incidence of breast abscess fell markedly. A controlled trial of an antibacterial cream, containing neomycin and hibitane, which was applied to the nasal mucosa of all infants and mothers in the test group of patients, was undertaken. The conditions obtaining in the test and control groups were identical in every way except that the control patients did not receive the neomycin-hibitane cream. There were about 1250 mothers and infants each in the test and control groups; the incidence of breast abscesses in the test group was 0.8% and in the control group it was 2.7%. The method adopted for the detection and treatment of carriers among the nursing staff broke down on two occasions; this fact and the emergence of an unforeseen source resulted in a larger number of infections than should have occurred. Had it not been for these incidents there is little doubt that the trial would have shown more conclusively the effectiveness of the neomycin-hibitane cream, by the method laid down, in reducing cross-infection.

Investigation of the bacterial flora on the nasal mucosa of over 1000 infants in the control group yielded results of considerable interest. Of 300 cases where there was early colonization by Staph. albus, this organism established its dominating position in 70% of the cases; and it was not subsequently displaced by Staph. aureus. The significance of this observation and the evidence favoring nasal dissemination of Staph. aureus as the most important cause of hospital cross-infection are discussed.

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Food-Borne Salmonellosis Outbreaks

US DHEW PHS Morbidity and Mortality Weekly Report 11(14):106, 13 April 1962.

A total of 20 reports of salmonellosis outbreaks were received from 8 states during 1961. Five of these were associated with poultry, and 1 each with roast beef, creamed carrots, cheese pudding and fish. Eggs were implicated as the source of infection in 2 outbreaks, one involving homemade ice cream and the other eclairs made at a commercial bakery.

A commercial salad dressing preparation accounted for 4 outbreaks of salmonellosis in two states. In 5 outbreaks, the food vehicle could not be determined; however, salmonella were recovered from affected persons.

Salmonella typhimurium was isolated in 10 outbreaks; in one of these Salmonella java was also recovered. Salmonella infantis was isolated in 2 outbreaks and S. oranienburg, S. thompson, S. enteritidis, S. montevideo, S. java, S. heidelberg, and S. blockley in 1 outbreak each. (CommDisBr, PrevMedDiv, BUMED)

Power Mower - Friend or Foe?

Office of Industrial Relations, Department of the Navy. Safety Review
19(5): 15, May 1962.

The spring season is an appropriate time to remind ourselves anew of the ever present dangers and precautions involved in the use of power mowers. Since children as well as adults are frequently involved in the mowing project around the home, the responsibility of insuring that hazards are eliminated is doubly high.

We have all read accounts of people losing a thumb or fingers when they attempted to pull some grass from the blades of a mower, or of toes being lost when an operator's foot was struck, or of a serious body injury when struck by something picked up and thrown by the mower blade.

One Naval activity reported in 1961 that a tractor mower struck a rock while cutting grass on the shoulder of a road and that the rock broke the windshield of a private car which was passing. There was no guard at the rear of the mower.

Such avoidable incidents point out the need for a greater regard for power mowers and of the importance of insuring that proper guards are in place at all times.

The following precautions, if carefully observed by all operators of power lawn mowers, will prevent accidents and help insure an enjoyable summer:

1. Be well acquainted with the safety and operating rules.
2. Never allow an inexperienced person to operate a mower.
3. Do not allow children or pets in the mowing area.
4. Do not start a self-propelled mower while it is in gear.
5. Do not leave a mower unattended while the engine is running.
6. Do not lift or tip the mower while it is running, especially if it is a rotary-blade mower.
7. Do not reach into the engine or blade while the engine is running.
8. Do not use any type of refueling container other than an approved Bureau of Underwriters' safety can.
9. Do not refuel the mower while it is running or still hot from use.
10. Shut off the engine and disconnect the spark plug wire before cleaning the machine of debris, or making any repairs.
11. Check your mower regularly for dangerous functioning and worn parts.
12. Shut off and disconnect power before moving mower from one level to another.
13. Do not pull a power mower backwards since it can easily be pulled over the foot.
14. Mow in daylight hours only, unless you have good artificial light.
15. Do not use the mower when the grass is wet and slippery.

16. Wear spiked, cleated golf shoes or similar shoes which will not slip when cutting grass on slopes or in damp weather.
17. One person should not move a heavy mower on a bank or incline by himself. The best method is for a helper to walk along the top edge of the bank, holding the mower on course by means of a length of rope tied to the machine. This takes the strain off the operator.
18. Be certain of your footing and balance, especially when mowing on an incline, keeping the feet safely away from the mower carriage.
19. Do not mow the lawn or high grass without first scouting the area for stray bottles, stones, pieces of metal, etc. which may be picked up by the mower and thrown against the operator or someone nearby causing an injury.
20. Riding mowers should be used with extreme caution on steep inclines, since they might tip over and easily catch fire, trap the operator, or otherwise injure or kill him.
21. Wear safety toe shoes.

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Rabies

Facts on Health Problems, PAHO, WHO, July 1961.

Size of Problem: All countries in the Americas, except Uruguay, report cases of rabies in man and animals. Over 7000 cases were diagnosed and reported in animals alone in 1958. Although often the rabid animals were dogs, rabies was also found in many other animals such as cats, skunks, foxes, wolves, bats, etc. In addition, it is a large problem in domestic livestock such as cattle, sheep, and horses, causing tremendous losses.

Control Techniques: (1) Rabies vaccination of all pet dogs and cats; domestic animals such as cattle, sheep, horses are vaccinated when rabies is a problem in these animals. (2) The elimination of wild animals involved and of stray or ownerless dogs. (3) Increased diagnostic laboratory services to improve the number of examinations and the distribution of such services.

Costs of Rabies: Cases of human rabies are relatively few but each case is fatal. An estimate of the cost of these cases is not practical. The cost of the thousands of anti-rabies treatments applied to persons each year who have been bitten by dogs or other animals suspected of having rabies is great. Elimination of rabies in animals is the principal way of preventing human cases. However, the vaccination of animals is an important and costly activity.

The largest cost of rabies is in the agricultural economy due to rabies deaths of livestock. For example, a recent report stated that ranchers in the U.S.-Mexico border area - suffered losses up to 30% of the newborn calves. To help prevent such losses, livestock owners are spending large amounts to vaccinate their animals against rabies.

RESERVE**SECTION**Retention in the Naval Reserve

Although the thorny subject of "attrition" has been covered previously, mail from individual officers indicates that not everyone has got "the word."

Because an increasing number of inactive Reserve officers are being affected by the provision of law contained in Title 10, U. S. Code, Section 6389, and covered in BuPers Manual, Article H-31201, Paragraph 6, a further review of the matter of removing inactive officers from an active status seems appropriate.

As in every organization, there must be fewer and fewer individuals as one enters the higher echelons of a command structure. This business of "attrition" is the Navy's means of maintaining a balanced officer grade structure.

The need for this policy is spotlighted now, as the passage of time brings into advanced promotion zones large numbers of officers who were appointed during a short period of high procurement—such as the years 1942-1946. If junior officers are to continue up the promotional ladder, certain senior officers must step aside. The law cited above provides for this weeding-out process which has come to be known as the "attrition program."

This law requires the transfer to the Retired Reserve or discharge of all officers in an active status who are considered as having failed of selection to the next higher grade 2 or more times—if they have completed the following periods of total commissioned service: Lieutenant commander, 20 years; commander, 26 years; captain, 30 years.

Current policy provides that lieutenants and lieutenants (junior grade) commissioned before 19 January 1961 will be considered on the same basis as lieutenant commanders. Those commissioned after that date will be discharged when twice failed of selection.

Total commissioned service may include "constructive commissioned service" for officers who were originally appointed in a grade above ensign. Constructive service is a period of service not actually performed by an officer. What does this mean? A USNR officer originally appointed above the grade of ensign is considered to have the same amount of commissioned service as a line officer of the Regular Navy originally appointed as an ensign and who, on or after 6 September 1947, is next junior to that Reserve officer.

Officers in the grade of commander and above are least likely to be adversely affected by this phase of the attrition program since they may be retained for more than 20 years of commissioned service. (However, another phase of this program, instituted in Fiscal Year 1961, currently removes certain numbers of USNR Captains from an active status in order to provide

for promotion flow.) Further, an officer who is credited with at least 18, but fewer than 20, years of satisfactory federal service on the date he would become subject to attrition (30 June following the 20th, 26th, or 30th anniversary, as appropriate) may be retained in an active status for a maximum of 3 additional years in order for him to establish eligibility for retirement with pay at age 60.

Thus it is apparent that lieutenant commanders and below who have missed more than 2 years of satisfactory federal service—that is, who have failed to earn 50 retirement points in each anniversary year for 2 or more years—are most likely to become subject to attrition before they complete 18 years of satisfactory federal service. The likelihood is lessened if they have any years of satisfactory federal service as enlisted personnel before commissioning which would offset the years missed since commissioning.

In 1960, 2 amendments were made to the Reserve Officer Personnel Act of 1954 which are worth noting:

A constructive service provision allows officers credited with constructive service at least a mathematical opportunity to earn 20 years of satisfactory federal service. This amendment allows the retention of those officers who were originally commissioned in a grade above ensign for a period equal to their constructive service if this period—when added to their years of satisfactory federal service on the date they become subject to attrition—will equal 20 years. In other words, an officer who is credited with 3 years of constructive commissioned service must have earned at least 17 years of satisfactory federal service on the date he is subject to attrition in order to be retained in an active status.

The Secretary of the Navy is authorized to retain certain lieutenant commanders in numbers sufficient to maintain the strength of the Ready Reserve in those specialties where a critical need exists. This authority was granted and intended for use solely to meet the needs of the service. Officers who are retained under this amendment are subject to periodic review by the Navy. While they may be retained for periods up to 5 years, their retention may be ended at any time the needs of the service require, and no guarantee of retention until they qualify for retirement with pay can be given.

Requests for retention under either of these amendments are not desired, and will not be approved. The Chief of Naval Personnel will screen all officers subject to attrition, and officers eligible for retention will be notified individually.

If you are interested in checking further into the policies governing attrition and retention, here are some additional provisions of law and regulation which may cause an officer's retirement, resignation, or discharge before he establishes eligibility for retirement with pay at age 60.

BuPers Manual, Article H-3705, covers transfers to and from the Standby Reserve. BuPers Manual, Article H-31201, covers the separation of officers for reasons such as these: Physical disqualification, military unfitness or unsuitability, unavailable for active duty, in excess of mobilization requirements, failure of selection for promotion, failure to reply promptly to official

correspondence, and failure to establish physical fitness when required. The BuPers Manual is available for perusal at any Naval activity.

(The Naval Reservist NAVPERS 15653, April 1962.)

ARMED FORCES DAY — MAY 19

The President has proclaimed that the third Saturday of each May shall be celebrated as Armed Forces Day. At home and overseas the Armed Forces will be hosts to fellow Americans and friends from 12-20 May.

"Power for Peace" is, for still another year, the slogan for Armed Forces Day. Secretary of Defense, Robert S. McNamara, encourages members of the Department of Defense "to observe Armed Forces Day by informing the American people of our 'Power for Peace' and by confirming their faith that in our strength we will remain free."

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